UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

BERKSHIRE HATHAWAY ENERGY COMPANY,
INTERSTATE POWER & LIGHT COMPANY,
MIDAMERICAN ENERGY COMPANY,
PACIFICORP,
WEC ENERGY GROUP, INC., AND
WISCONSIN POWER & LIGHT COMPANY
Petitioners

v.

MIDWEST ENERGY EMISSIONS CORP.
Patent Owner

IPR2025-00274
Patent 10,343,114

PATENT OWNER'S REPLY TO PETITIONERS' BRIEF OPPOSING PATENT OWNER'S BRIEF REGARDING DISCRETIONARY DENIAL

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Patent Trial and Appeal Board
U.S. Patent and Trademark Office
P.O. Box 1450
Alexandria, VA 22313-1450

Exhibit List	
Exhibit	**Description**
2001	Declaration of Justin T. Nemunaitis
2002	Declaration of Richard Cochrane
2003	Original Complaint for Patent Infringement, *Midwest Energy Emissions Corp., et al. v. Vistra Energy Corp., et al.*, C.A. 1:19-cv-01334, ECF No. 1 (D. Del. July 17, 2019)
2004	Transcript of Jury Trial, *Midwest Energy Emissions Corp., et al. v. Arthur J. Gallagher & Co., et al.*, C.A. 1:19-cv-01334 (D. Del.) (Feb. 26, 2024–March 1, 2024)
2005	Non-Final Judgment Following Jury Verdict, *Midwest Energy Emissions Corp., et al. v. Arthur J. Gallagher & Co., et al.*, C.A. 1:19-cv-01334, ECF No. 697 (D. Del. March 8, 2024)
2006	Case Management Order, *In re: Midwest Energy Emissions Corp. Pat. Litig.*, No. 4:24-md-03132-SHL-WPK, ECF No. 60 (S.D. Iowa March 7, 2025)
2007	Complaint for Patent Infringement, *Midwest Energy Emissions Corp. v. Berkshire Hathaway Energy Company, et al.*, 4:24-cv-00243-SHL-WPK, ECF No. 1 (S.D. Iowa July 18, 2024)
2008	PacifiCorp's First Amended Answer, Affirmative Defenses, and Counterclaims in Response to Plaintiff's First Amended Complaint for Patent Infringement, *In re: Midwest Energy Emissions Corp. Pat. Litig.*, No. 4:24-md-03132-SHL-WPK, ECF No. 82 (S.D. Iowa March 21, 2025) (Redacted)
2009	Defendant MidAmerican Energy Company's First Amended Answer, Affirmative Defenses, and Counterclaims to Plaintiff's First Amended Complaint, *In re: Midwest Energy Emissions Corp. Pat. Litig.*, No. 4:24-md-03132-SHL-WPK, ECF No. 83 (S.D. Iowa March 21, 2025) (Redacted)
2010	Defendant Wisconsin Power and Light Company's First Amended Answer, Affirmative Defenses, and Counterclaims to First Amended Complaint, *In re: Midwest Energy Emissions Corp. Pat. Litig.*, No. 4:24-md-03132-SHL-WPK, ECF No. 87 (S.D. Iowa March 21, 2025) (Redacted)

2011	Opening Expert Report of Dr. Stephen Niksa, *Midwest Energy Emissions Corp., et al. v. Arthur J. Gallagher & Co., et al.*, C.A. 1:19-cv-01334 (D. Del.)
2012	Pilot- and Full-Scale Demonstration of Advanced Mercury Control Technologies for Lignite-Fired Power Plants, Quarterly Report (for the Period October 1, 2003 – December 31, 2003), dated February 2004
2013	Pilot- and Full-Scale Demonstration of Advanced Mercury Control Technologies for Lignite-Fired Power Plants, Final Report, dated February 2005
2014	Mercury Control Technologies for Electric Utilities Burning Subbituminous Coals, Final Report (For the period January 1, 2004 through June 30, 2005), dated October 2005
2015	Center for Air Toxic Metals (CATM), 2003 Research Ideas, dated August 30, 2002
2016	Document Metadata for Center for Air Toxic Metals (CATM), 2003 Research Ideas
2017	Declaration of Thomas Erickson including PTC logbook entries
2018	Declaration of Inventor John Pavlish, dated July 27, 2020
2019	Plaintiff ME2C's Brief in Support of Its Motion for Preliminary Injunction, *Midwest Energy Emissions Corp. v. Berkshire Hathaway Energy Company, et al.*, 4:24-cv-00243-SHL-WPK, ECF No. 58-1 (S.D. Iowa Oct. 11, 2024)
2020	Defendants' Brief in Support of Their Resistance to Plaintiff's Motion for Preliminary Injunction, *Midwest Energy Emissions Corp. v. Berkshire Hathaway Energy Company, et al.*, 4:24-cv-00243-SHL-WPK, ECF No. 125 (S.D. Iowa Dec. 16, 2024) (Redacted)
2021	Plaintiff ME2C's Reply Brief in Support of Its Motion for Preliminary Injunction, *Midwest Energy Emissions Corp. v. Berkshire Hathaway Energy Company, et al.*, 4:24-cv-00243-SHL-WPK, ECF No. 139 (S.D. Iowa Dec. 23, 2024) (Redacted)
2022	DTE Electric Company Affiliates Report, dated December 31, 2023

2023	First Amended Complaint for Patent Infringement, *Midwest Energy Emissions Corp., et al. v. Vistra Energy Corp., et al.*, C.A. 1:19-cv-01334, ECF No. 130 (D. Del. July 15, 2020)
2024	EPA, "Study of Hazardous Air Pollutant Emissions from Electric Utility Steam Generating Units—Final Report to Congress"
2025	EPA Clean Air Act Overview, https://www.epa.gov/clean-air-act-overview/1990-clean-air-act-amendment-summary-title-iii
2026	EPA, Mercury Study Report to Congress Vol. I (1997)
2027	EERC internal presentation, "Description of Test Facilities Particulate Test Combustor"
2028	EERC internal presentation, "Mercury Control Technologies for Electric Utilities Burning Lignite Coals, Introduction to Project" (12/4/2001)
2029	EERC internal presentation, "Mercury Control Technologies for Electric Utilities Burning Lignite Coals Project Kickoff Meeting" part 1 (2/28/2002)
2030	EERC internal presentation, "Mercury Control Technologies for Electric Utilities Burning Lignite Coals Project Kickoff Meeting" part 2 (2/28/2002)
2031	EERC internal presentation, "Mercury Control Technologies for Electric Utilities Burning Lignite Coals, Project Review Meeting" (2/25/2003)
2032	"JV TASK 45 – MERCURY CONTROL TECHNOLOGIES FOR ELECTRIC UTILITIES BURNING LIGNITE COAL, PHASE I BENCH- AND PILOT-SCALE TESTING Final Report" (Oct. 2003) (the "Oct. 2003 Report")
2033	Metadata for Notes on Center for Air Toxic Metals (CATM) 2003 Research Ideas
2034	DOE, Success Story for Sorbent Enhancement Additives
2035	EPA, Mercury and Air Toxics Standards, https://www.epa.gov/mats/cleaner-power-plants
2036	Order Denying Motions to Stay and Motion to Compel, *In re: Midwest Energy Emissions Corp. Pat. Litig.*, No. 4:24-md-03132-SHL-WPK, ECF No. 131 (S.D. Iowa May 22, 2025)

2037	Refined Coal Supply Agreement by and between Portage Fuels Company, LLC and Wisconsin Power and Light Company, dated September 6, 2016 (ALLIANT-ME2C-004484)
2038	Contract for Purchase of Refined Coal between Louisa Refined Coal LLC and MidAmerican Energy Company, dated Oct. 4, 2011 (MEC001747-MEC001789)
2039	Contract for Purchase of Refined Coal between George Neal Refined Coal LLC and MidAmerican Energy Company, dated Aug. 29, 2012 (MEC001916-MEC001934)
2040	Contract for Purchase of Refined Coal between George Neal North Refined Coal LLC and MidAmerican Energy Company, dated Apr. 30, 2013 (MEC001954-MEC001984)
2041	Contract for Purchase of Refined Coal between Walter Scott Refined Coal LLC and MidAmerican Energy Company, dated Oct. 10, 2011 (MEC001832-MEC001873)
2042	License and Services Agreement by and between Arbor Fuels Company, LLC and Wisconsin Public Service Corp., dated July 8, 2016 (WEC000001-WEC000040)
2043	J. D. Kilgroe, C. B. Sedman, R. K. Srivastava, J. V. Ryan, C. W. Lee, S. A. Thorneloe, *Control of Mercury Emissions from Coal-Fired Electric Utility Boilers: Interim Report*, U.S. Environmental Protection Agency, Office of Research and Development, EPA-600/R-01-109, April 2002.
2044	File History of U.S. Patent App. No. 15/974,343, which ultimately issued as U.S. Patent No. 10,668,430

The Acting Director has authorized this Reply to address two issues: the real-party-in-interest analysis and discretionary denial under 35 U.S.C. § 325(d).

I. Petitioners Are Time-Barred as RPIs and/or Privies of Earlier Litigants.

"Determining whether a non-party is a 'real party in interest' demands a flexible approach that takes into account both equitable and practical considerations, with an eye toward determining whether the non-party is a clear beneficiary that has a preexisting, established relationship with the petitioner." *Applications in Internet Time, LLC v. RPX Corp.*, 897 F.3d 1336, 1351 (Fed. Cir. 2018) (emphasis added); *see Ventex Co., Ltd. v. Columbia Sportswear N. Am., Inc.*, IPR2017-00651, Paper 152 (PTAB Jan. 24, 2019) (precedential) (following *AIT*).[1]

As explained in Patent Owner's Brief Regarding Discretionary Denial, because Petitioner PacifiCorp failed to identify Talen as a real party in interest in contravention of § 312(a)(2), and because Talen is time-barred under § 315, the present petition is time-barred.

As to remaining Petitioners Berkshire Hathaway Energy Company,

[1] Privity may be shown by "(1) an agreement between the parties to be bound; (2) pre-existing substantive legal relationships between the parties; (3) adequate representation by the named party; (4) the non-party's control of the prior litigation; (5) where the non-party acts as a proxy for the named party to relitigate the same issues; and (6) where special statutory schemes foreclose successive litigation by the non-party (*e.g.*, bankruptcy and probate)." *AIT*, 897 F.3d at 1360 (Reyna, J., concurring) (citing *Taylor v. Sturgell*, 553 U.S. 880, 894–95 (2008)). Any one factor or "category" can support a showing of privity. *Id.*

Interstate Power & Light Company ("IPL"), MidAmerican Energy Company ("MidAmerican"), WEC Energy Group, Inc. ("WEC"), and Wisconsin Power & Light Company ("WPL"), they and their real parties-in-interest own power plants that used something called "the Chem-Mod Solution" to burn coal. This process involved the sale of refined coal (coal treated with bromine) to Petitioners under sales agreements that included indemnity provisions. This type of supply relationship can create privity. *See Semiconductor Components Indus., LLC v. Greenthread, LLC*, IPR2023-01242, Paper 94 at 3 (PTAB Apr. 24, 2025).

In the Delaware Action, Patent Owner asserted that the Chem-Mod Solution caused direct infringement at Petitioners' power plants. Ex. 2003 at 12–13. Chem-Mod LLC and its various sublicensees were named as Defendants in the Delaware Action. Ex. 2003.

Petitioner WPL purchased refined coal from Chem-Mod sub-licensee Portage Fuels Company, LLC for combustion at the Columbia power plant. That agreement provided indemnity to WPL as the Buyer of refined coal for infringement of intellectual property rights:

[redacted]

[redacted]

Ex. 2037 § 13.1. MidAmerican purchased refined coal from Chem-Mod LLC sublicensees Louisa Refined Coal LLC, George Neal Refined Coal LLC, George Neal North Refined Coal LLC, and Walter Scott Refined Coal LLC for combustion of refined coal at its Louisa, George Neal, and Walter Scott power plants. The agreements related to these sales also contain indemnity provisions. Exs. 2038–41. Petitioner Berkshire Hathaway Energy Company owns and controls MidAmerican, and Petitioner IPL co-owns the Louisa and George Neal power plants.

Wisconsin Public Service Corporation, the parent of Petitioner WEC, purchased refined coal from Chem-Mod sublicensee Arbor Fuels Company, LLC for combustion at its Weston power plant. The agreements memorializing this relationship also contain indemnity provisions. *See, e.g.*, Ex. 2042.

By July 15, 2020, Patent owner had sued and named as defendants Chem-Mod LLC and its sublicensees for infringement of the Challenged Patents in the United States District Court for the District of Delaware. Exs. 2003, 2023.

In light of the above and associated arguments in Patent Owner's Brief

Regarding Discretionary Denial, the present petition is time-barred under 35 U.S.C. § 315(b) and barred for failure to identify at least Chem-Mod and its sublicensees in violation of 35 U.S.C. § 312(a)(2).

II. The *Advanced Bionics* Framework Supports Discretionary Denial.

Given the recent precedential decision in *Ecto World*, the Director should deny institution under 35 U.S.C. § 325(d) because Petitioner presents art (Vosteen and Downs-Boiler) on the face of the patent.

Under 325(d), the Board uses the following two-part framework before instituting a petition: (1) it determines whether the same or substantially the same art or arguments were previously presented to the Office; and (2) if so, then it determines whether the petitioner has demonstrated that the Office "erred in a manner material to the patentability of challenged claims." *Advanced Bionics LLC v. MED-EL Elektromedizinische Gerate GmbH*, IPR2019-01469, Paper 6 at 8 (Feb. 13, 2020) (precedential). For part one of *Advanced Bionics*, "[c]hallenging the claims using the same prior art that was previously presented on an IDS is sufficient to satisfy the first part of the *Advanced Bionics* framework." *Ecto World, LLC v. RAI Strategic Holdings, Inc.*, IPR2024-01280, Paper 13 at 4 (May 19, 2025). For part two of *Advanced Bionics*, a Petitioner "must provide an analysis even when the asserted prior art is on an IDS, but the Examiner did not apply the reference." *Ecto World*, Paper 13 at 5. In other words, it is the Petitioner's burden

to show the Office made a material error as to the patentability of the claims.

Both Vosteen and Downs-Boiler appear on the face of the ’114 Patent, satisfying part of one of *Advanced Bionics*. ’114 Patent at 3 (citing Vosteen, U.S. Pub. No. 2004/0013589, and Downs-Boiler U.S. Pub. No. 2008/0107579).

For part two of *Advanced Bionics*, the Petition provides at most a cursory treatment of the 35 U.S.C. § 325(d) and fails to identify any material error made by the Office for Vosteen or Downs-Boiler. As to Vosteen, the Petition does not allege any material error by the Office. *See* Petition at 99–100. As to Downs-Boiler, the Petition’s allegations are conclusory: “the examiner did not use Downs-Boiler in a substantive rejection,” and “the Examiner erred by not citing Downs-Boiler during prosecution.” Pet. at 100. But as the Director recently explained, Petitioners cannot meet their burden merely by noting that a reference was cited in the IDS and that “Examiner did not apply the reference.” *Ecto World*, Paper 13 at 5. Petitioners contend that 325(d) isn’t arguable because “[Patent Owner] buried the examiner in prior art.” Paper 18 at 50. That characterization omits the fact that the family history of the ’114 Patent was nearly 15 years old at grant. Thus, the references on the face of the patent reflect both the thorough examination by the Office and diligence of Patent Owner. Consequently, Petitioners have failed to meet their burden of providing an analysis of material error made by the Office.

For the reasons above, the Director should deny institution under § 325(d).

Dated: June 24, 2025

Respectfully submitted,

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CERTIFICATE OF SERVICE UNDER 37 C.F.R. § 42.6(e)(4)

It is hereby certified that on this 24th day of June, 2025, a copy of the foregoing document was served via electronic mail, as consented to by Petitioner upon the following counsel of record:

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